

**In the Drawings**

Please replace Figs. 1, 2 and 4-9 with the replacement sheets provided herewith.

**REMARKS**

Claims 1 and 3-25 are pending in the present application. Claim 1 is amended herein. Claim 2 is cancelled herein.

**Drawing Objections**

The Examiner objected to Figs. 1, 2 and 4 - 9 as not providing appropriate arrows from the subsection to the corresponding label, and Fig. 7 for not labeling the function of box 20. Applicants herewith submits replacement sheets for Figs 1, 2 and 4 – 9 with the appropriate arrows and labels added. Reconsideration and acceptance of the replacement sheets is hereby requested.

**Double Patenting**

Applicants respectfully disagree with the Examiner's characterization that claim 1 as originally filed is not patentably distinct from claim 1 of co-pending Application No. 10/443,230.

Claim 1 of the present application as originally filed recites "...detecting, by a detection means, the conjugate electrical response elicited from the system under test by the excitation; converting the detected response from an analog signal into a digital response signal by means of an analog-to-digital conversion means, controlled by a synchronous sampling clock controlling means...." Contrarily, claim 1 of co-pending Application No. 10/443,230 recites "...acquiring digital samples with a sampling means synchronized with said excitation means, and operating in accordance with a pre-determined sampling schedule...."

Applicants respectfully submit that synchronization of the A/D conversion as claimed in the present application is not taught or suggested by synchronization of the sampling with the excitation means and operating in accordance with a predetermined schedule” as claimed in the referenced co-pending application.

However, to expedite prosecution, Applicants have amended claim 1 to include all of the limitations of claim 2 which the Examiner has indicated is allowable.

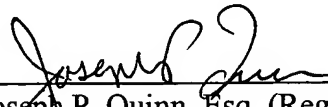
**Allowable Material**

Applicants gratefully acknowledge the Examiner’s allowance of claims 21 – 25 and the Examiner’s indication that claims 2-20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. To the same effect, Applicants have herein cancelled claim 2 and amended claim 1 to include all of the limitations of original claim 2. Applicants respectfully submit that all of the claims are now in condition of allowance. Reconsideration and allowance is respectfully requested.

Please charge any deficiency as well as any other fees which may become due at any time during the pendency of this application, or credit any overpayment of such fees to deposit account No. 50-0369. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge deposit account No. 50-0369 therefore.

Respectfully submitted,

May 11, 2005  
Dated:

  
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